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EXAMINER	
NGUYEN, TOAN D	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/991,284	LO, WILLIAM	
	Examiner	Art Unit	
	TOAN D. NGUYEN	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 January 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-171* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12,20-27,35-45,53-64,73-84,92-103,112-123,131-142,151-162 and 171* is/are rejected.

7)☒ Claim(s) *13-19,28-34,46-52,65-72,85-91,104-111,124-130,143-150 and 163-170* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 June 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-1-171 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

2. Claims 13, 29, 46, 65, 85-86, 104-105, 124, 143 and 163 are objected to because of the following informalities:

Claim 13, line 6, it is suggested to change "first FLP burst" to --- first fast link pulse (FLP) burst ---. Similar problems exist in claim 29, line 6; claim 46, line 6; claim 124, line 5; claim 143, line 2; and claim 163, line 2.

Claim 65, line 2, it is suggested to change "FLIP burst" to --- fast link pulse (FLP) burst ---. Similar problem exists in claim 85, line 6; claim 86, line 1; claim 104, line 2; and claim 105, line 3.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1 and 35 are rejected under 35 U.S.C. 102(e) as being anticipated by the applicant's admitted prior art (AAPA).

For claim 1, the applicant's admitted prior art (AAPA) discloses an autonegotiation circuit for Ethernet networks, comprising:

a first device (figure 1, reference 10, page 2, paragraph [0006], lines 2-3) that communicates with a first media (figure 1, reference 20-1)(page 2, paragraph [0006], lines 5-10);

a second device (figure 1, reference 26-1, page 2, paragraph [0006], lines 9-10) that communicates with a second media (figure 1, reference 22-1)(page 2, paragraph [0006], lines 7-10); and

a Gigabit interface connector (GBIC) module (figure 1, reference 16-1, page 2, paragraph [0006], lines 5-8) that communicates with said first device (figure 1, reference 10) over said first media (figure 2, reference 20-1) and with said second device (figure 2, reference 26-1) over said second media (figure 2, reference 22-1), wherein said GBIC provides autonegotiation between said first and second devices (page 2, paragraph [0006], lines 5-10).

For claim 35, the applicant's admitted prior art (AAPA) discloses an autonegotiation circuit for Ethernet networks, comprising:

first means (figure 1, reference 10, paragraph [0006], lines 2-3) for communicating over with first media (figure 1, reference 20-1)(page 2, paragraph [0006], lines 5-10);

second means (figure 1, reference 26-1, page 2, paragraph [0006], lines 9-10) for communicating over with a second media (figure 2, reference 22-1)(page 2, paragraph [0006], lines 7-10); and

network interface means (figure 1, reference 16-1, page 2, paragraph [0006], lines 5-8) for communicating with said first means over said first media and with said second means over said second media, and for providing autonegotiation between said first and second means (page 2, paragraph [0006], lines 5-10),

wherein said network interfacing means includes a Gigabit interface connector (GBIC) module for communicating with said first means and with said second means (figure 1, reference 16-1, page 2, paragraph [0006], lines 5-10).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 20, 53, 73, 92, 112, 131 and 151 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art (AAPA) in view of Heaton (US 5,922,052).

For claim 20, the applicant's admitted prior art (AAPA) discloses an autonegotiation circuit for Ethernet networks, comprising:

a switch (figure 1, reference 10, paragraph [0006], lines 2-3) that communicates with first media (figure 1, reference 20-1)(page 2, paragraph [0006], lines 5-8);

a device (figure 1, reference 26-1, page 2, paragraph [0006], lines 9-10) that communicates with a second media (figure 2, reference 22-1)(page 2, paragraph [0006], lines 7-10), and

a Gigabit interface connector (GBIC) module (figure 1, reference 16-1, page 2, paragraph [0006], lines 5-8) that communicates with said switch (figure 1, reference 10) over said first media (figure 1, reference 20-1) and with said device (figure 1, reference 26-1) over said second media (figure 2, reference 22-1), wherein said GBIC module allows autonegotiation between said switch and said device (page 2, paragraph [0006], lines 5-10).

However, the applicant's admitted prior art (AAPA) does not expressly disclose a second media that is a different type of media than said first media. In an analogous art, Heaton discloses a second media (figure 2, reference 160) that is a different type of media than said first media (figure 1, reference 150)(col. 4, lines 50-67).

One skilled in the art would have recognized the second media that is a different type of media than said first media, and would have applied Heaton's communication circuit 100 in the AAPA. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Heaton's fast Ethernet combination chaining of auto-negotiations for multiple physical layer capability in the AAPA with the motivation being to provide each of physical layer circuits 150 and 160 contains well known auto-negotiation features (col. 5, lines 15-16).

For claim 53, the applicant's admitted prior art (AAPA) discloses an autonegotiation circuit for Ethernet networks, comprising:

coupling a first media (figure 1, reference 20-1) to a first device (figure 1, reference 10)(page 2, paragraph [0006]);

coupling a second media (figure 1, reference 22-1) to a second device (figure 1, reference 26-1)(page 2, paragraph [0006], lines 7-10); and

using a Gigabit interface connector (GBIC) module (figure 1, reference 16-1) to communicate with said first device (figure 1, reference 10) over said first media (figure 1, reference 20-1) and with said second device (figure 1, reference 26-1) over said second media (figure 1, reference 22-1), wherein said GBIC module allows autonegotiation between said first and second devices (page 2, paragraph [0006], lines 5-10).

However, the applicant's admitted prior art (AAPA) does not expressly disclose wherein said second media is a different type of media than said first media. In an analogous art, Heaton discloses wherein said second media (figure 2, reference 160) is a different type of media than said first media (figure 2, reference 150)(col. 4, lines 50-67).

One skilled in the art would have recognized the wherein said second media is a different type of media than said first media, and would have applied Heaton's communication circuit 100 in the AAPA. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Heaton's fast Ethernet combination chaining of auto-negotiations for multiple physical layer capability in the AAPA with the motivation being to provide each of physical layer circuits 150 and 160 contains well known auto-negotiation features (col. 5, lines 15-16).

For claim 73, the applicant's admitted prior art (AAPA) discloses an autonegotiation circuit for Ethernet networks, comprising:

a first device (figure 1, reference 10) that communicates with a first media (figure 1, reference 20-1)(page 2, paragraph [0006], lines 5-8);

a second device (figure 1, reference 26-1) that communicates with a second media (figure 1, reference 22-1)(page 2, paragraph [0006], lines 7-10); and

a Gigabit interface connector module (GBIC)(figure 1, reference 16-1) that communicates with said first device (figure 1, reference 10) over said first media (figure 1, reference 20-1) and with said second device (figure 1, reference 26-1) over said second media (figure 1, reference 22-1), wherein said GBIC module provides autonegotiation between said first and second devices (page 2, paragraph [0006], lines 5-10).

However, the applicant's admitted prior art (AAPA) does not expressly disclose wherein said first media is a different media than said second media. In an analogous art, Heaton discloses wherein said first media (figure 2, reference 150) is a different media than said second media (figure 2, reference 160)(col. 4, lines 50-67).

One skilled in the art would have recognized the wherein said first media is a different media than said second media, and would have applied Heaton's communication circuit 100 in the AAPA. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Heaton's fast Ethernet combination chaining of auto-negotiations for multiple physical layer capability in the

AAPA with the motivation being to provide each of physical layer circuits 150 and 160 contains well known auto-negotiation features (col. 5, lines 15-16).

For claim 92, the applicant's admitted prior art (AAPA) discloses an autonegotiation circuit for Ethernet networks, comprising:

coupling a first media (figure 1, reference 20-1) to a first device (figure 1, reference 10)(page 2, paragraph [0006]);

coupling a second media (figure 1, reference 22-1) to a second device (figure 1, reference 26-1)(page 2, paragraph [0006], lines 7-10); and

using a Gigabit interface connector (GBIC) module (figure 1, reference 16-1) to communicate with said first device (figure 1, reference 10) over said first media (figure 1, reference 20-1) and with said second device (figure 1, reference 26-1) over said second media (figure 1, reference 22-1), wherein said GBIC module allows autonegotiation between said first and second devices (page 2, paragraph [0006], lines 5-10).

However, the applicant's admitted prior art (AAPA) does not expressly disclose wherein said second media is a different type of media than said first media. In an analogous art, Heaton discloses wherein said second media (figure 2, reference 160) is a different type of media than said first media (figure 2, reference 150)(col. 4, lines 50-67).

One skilled in the art would have recognized the wherein said second media is a different type of media than said first media, and would have applied Heaton's communication circuit 100 in the AAPA. Therefore, it would have been obvious to one of

ordinary skill in the art at the time of the invention, to use Heaton's fast Ethernet combination chaining of auto-negotiations for multiple physical layer capability in the AAPA with the motivation being to provide each of physical layer circuits 150 and 160 contains well known auto-negotiation features (col. 5, lines 15-16).

For claim 112, the applicant's admitted prior art (AAPA) discloses an autonegotiation circuit for Ethernet networks, comprising:

first means (figure 1, reference 10, paragraph [0006], lines 2-3) for communicating over with first media (figure 1, reference 20-1)(page 2, paragraph [0006], lines 5-8);

second means (figure 1, reference 26-1, page 2, paragraph [0006], lines 9-10) for communicating over with a second media (figure 2, reference 22-1)(page 2, paragraph [0006], lines 7-10); and

network interface means (figure 1, reference 16-1, page 2, paragraph [0006], lines 5-8) for communicating with said first means over said first media and with said second means over said second media, and for providing autonegotiation between said first and second means (page 2, paragraph [0006], lines 5-10),

wherein said network interfacing means includes a Gigabit interface connector (GBIC) module (figure 1, reference 16-1, page 2, paragraph [0006], lines 5-10).

However, the applicant's admitted prior art (AAPA) does not expressly disclose wherein said first media is a different media than said second media. In an analogous art, Heaton discloses wherein said first media (figure 2, reference 150) is a different media than said second media (figure 2, reference 160)(col. 4, lines 50-67).

One skilled in the art would have recognized the wherein said first media is a different media than said second media, and would have applied Heaton's communication circuit 100 in the AAPA. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Heaton's fast Ethernet combination chaining of auto-negotiations for multiple physical layer capability in the AAPA with the motivation being to provide each of physical layer circuits 150 and 160 contains well known auto-negotiation features (col. 5, lines 15-16).

For claim 131, the applicant's admitted prior art (AAPA) discloses an autonegotiation circuit for Ethernet networks, comprising:

coupling a first media (figure 1, reference 20-1) to a switch (figure 1, reference 10)(page 2, paragraph [0006]);

coupling a second media (figure 1, reference 22-1) to a device (figure 1, reference 26-1)(page 2, paragraph [0006], lines 7-10); and

using a Gigabit interface connector (GBIC) module (figure 1, reference 16-1) to communicate with said switch (figure 1, reference 10) over said first media (figure 1, reference 20-1) and with said device (figure 1, reference 26-1) over said second media (figure 1, reference 22-1), wherein said GBIC module allows autonegotiation between said switch and said device (page 2, paragraph [0006], lines 5-10).

However, the applicant's admitted prior art (AAPA) does not expressly disclose wherein said second media is a different type of media than said first media. In an analogous art, Heaton discloses wherein said second media (figure 2, reference 160) is

a different type of media than said first media (figure 2, reference 150)(col. 4, lines 50-67).

One skilled in the art would have recognized the wherein said second media is a different type of media than said first media, and would have applied Heaton's communication circuit 100 in the AAPA. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Heaton's fast Ethernet combination chaining of auto-negotiations for multiple physical layer capability in the AAPA with the motivation being to provide each of physical layer circuits 150 and 160 contains well known auto-negotiation features (col. 5, lines 15-16).

For claim 151, the applicant's admitted prior art (AAPA) discloses an autonegotiation circuit for Ethernet networks, comprising:

coupling a first media (figure 1, reference 20-1) to a switch (figure 1, reference 10)(page 2, paragraph [0006]);

coupling a second media (figure 1, reference 22-1) to a device (figure 1, reference 26-1)(page 2, paragraph [0006], lines 7-10); and

using a Gigabit interface connector (GBIC) module (figure 1, reference 16-1) to communicate with said switch (figure 1, reference 10) over said first media (figure 1, reference 20-1) and with said device (figure 1, reference 26-1) over said second media (figure 1, reference 22-1), wherein said GBIC module allows autonegotiation between said switch and said device (page 2, paragraph [0006], lines 5-10).

However, the applicant's admitted prior art (AAPA) does not expressly disclose wherein said second media is a different type of media than said first media. In an

analogous art, Heaton discloses wherein said second media (figure 2, reference 160) is a different type of media than said first media (figure 2, reference 150)(col. 4, lines 50-67).

One skilled in the art would have recognized the wherein said second media is a different type of media than said first media, and would have applied Heaton's communication circuit 100 in the AAPA. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Heaton's fast Ethernet combination chaining of auto-negotiations for multiple physical layer capability in the AAPA with the motivation being to provide each of physical layer circuits 150 and 160 contains well known auto-negotiation features (col. 5, lines 15-16).

7. Claims 2-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art (AAPA) in view of Booth et al. (US 6,516,352).

For claims 2-12, the applicant's admitted prior art (AAPA) does not expressly disclose wherein said first device includes a first GBIC interface including a transmitter and a receiver. In an analogous art, Booth et al. disclose wherein said first device includes a first network interface card (NIC)(GBIC interface means) including a transmitter and a receiver (figures 8A-B, references 540A and 540B, col. 13, lines 28-45).

Booth et al. disclose wherein said first media includes 1000BASE-LX media (col. 5, line 2 as set forth in claim 3), wherein said first media includes 1000BASE-SX media (col. 4, line 67 as set forth in claim 4), wherein said first media includes 1000BASE-X media (col. 5, line12 as set forth in claim 5), wherein said second media includes

1000BASE-T media (col. 5, line 23 as set forth in claim 6), wherein said NIC (GBIC module means) includes a second NIC (GBIC interface means) with a transmitter and a receiver (figure 8A-B, references 610 and 612, col. 15, lines 21-22 as set forth in claim 7), wherein said NIC (GBIC module means) includes a first copper interface with a transmitter and a receiver (figure 8A-B, references 610 and 612, col. 15, lines 21-22 as set forth in claim 8), wherein said second device (figure 5, reference 440) includes a second copper interface with a transmitter and a receiver (col. 15, lines 35-37 as set forth in claim 9), wherein said transmitter of said first NIC (GBIC interface means) interface communicates with said receiver of said second NIC interface (GBIC interface means) and said receiver of said first NIC interface (GBIC interface means) communicates with said transmitter of said second NIC interface (GBIC interface means) (figure 7, references 540A-B, col. 15, lines 28-51 as set forth in claim 10), wherein said transmitter of said first copper interface communicates with said receiver of said second copper interface and said receiver of said first copper interface communicates with said transmitter of said second copper interface (figure 7, references 542A-B, col. 15, lines 28-56 as set forth in claim 11), wherein said transmitters of said first and second NIC interfaces (GBIC interfaces mean) transmit a first configuration ordered set (col. 16, lines 35-37 as set forth in claim 12).

One skilled in the art would have recognized the wherein said first device includes a first NIC interface including a transmitter and a receiver, and would have applied Booth et al.'s NIC in the AAPA. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Booth et al.'s network interface

system and method for dynamically switching between different physical layer devices in the AAPA with the motivation being to provide transceiver (col. 13, lines 28-45).

8. Claims 21-27, 36-45, 54-64, 74-84, 93-103, 113-123, 132-142 and 152-162 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art (AAPA) in view of Heaton (US 5,922,052) further in view of Booth et al. (US 6,516,352).

For claims 21-27, 36-45, 54-64, 74-84, 93-103, 113-123, 132-142 and 152-162, the applicant's admitted prior art (AAPA) in view of Heaton does not expressly wherein said first media includes 1000BASE-LX media. In an analogous art, Booth et al. disclose wherein said first media includes 1000BASE-LX media (col. 5, line 2).

Booth et al. disclose wherein said first media includes 1000BASE-SX media (col. 4, line 67 as set forth in claim 22), wherein said first media includes 1000BASE-X media (col. 5, line12 as set forth in claim 23), wherein said switch includes a first NIC interface (GBIC interface means) with a transmitter and a receiver (figures 8A-B, references 540A and 540B, col. 13, lines 28-45), said NIC (GBIC module means) includes a second NIC interface (GBIC interface means) with a transmitter and a receiver (figure 8A-B, references 610 and 612, col. 15, lines 21-22), and a first copper interface with a transmitter and a receiver (figure 8A-B, references 610 and 612, col. 15, lines 21-22), and said device includes a second copper interface with a transmitter and a receiver (col. 15, lines 35-37 as set forth in claim 24), wherein said transmitter of said first NIC interface (GBIC interface means) communicates with said receiver of said second NIC interface (GBIC interface means) and said receiver of said first NIC interface (GBIC

interface means) communicates with said transmitter of said second NIC interface (GBIC interface means) (figure 7, references 540A-B, col. 15, lines 28-51 as et forth in claim 25), wherein said transmitter of said first copper interface communicates with said receiver of said second copper interface and said receiver of said first copper interface communicates with said transmitter of said second copper interface (figure 7, references 542A-B, col. 15, lines 28-56 as set forth in claim 26), wherein said transmitters of said first and second NIC interfaces (GBIC interfaces mean) transmit a first configuration ordered set (col. 16, lines 35-37 as set forth in claim 27), wherein said first means includes a first network interfacing means including a transmitter and a receiver (figures 8A-B, references 540A and 540B, col. 13, lines 28-45 as set forth in claim 36), wherein said first media includes 1000BASE-LX media (col. 5, line 2 as set forth in claim 37), wherein said first media includes 1000BASE-SX media (col. 4, line 67 as set forth in claim 38), wherein said first media includes 1000BASE-X media (col. 5, line12 as set forth in claim 39), wherein said second media includes 1000BASE-T media (col. 5, line 23 as set forth in claim 40), wherein said network interfacing means includes:

a second network interface with a transmitter and a receiver (figure 8A-B, references 610 and 612, col. 15, lines 21-22); and

a first copper interface with a transmitter and a receiver (figure 8A-B, references 610 and 612, col. 15, lines 21-22 as set forth in claim 41), wherein said second means includes a second copper interface with a transmitter and a receiver (col. 15, lines 35-37 as set forth in claim 42), wherein said transmitter of said first network interface

communicates with said receiver of said second network interface and said receiver of said first network interface communicates with said transmitter of said second network interface (figure 7, references 540A-B, col. 15, lines 28-51 as set forth in claim 43), wherein said transmitter of said first copper interface communicates with said receiver of said second copper interface and said receiver of said first copper interface communicates with said transmitter of said second copper interface (figure 7, references 542A-B, col. 15 lines 28-56 as set forth in claim 44), wherein said transmitters of said first and second network interfaces transmit a first configuration ordered set (col. 16, lines 35-37 as set forth in claim 45), providing a first NIC interface (GBIC interface means) including a transmitter and a receiver in said first device (figures 8A-B, references 540A and 540B, col. 13, lines 28-45 as set forth in claim 54), wherein said first media includes 1000BASE-LX media (col. 5 line 2 as set forth in claim 55), wherein said first media includes 1000BASE-SX media (col. 4, line 67 as set forth in claim 56), wherein said first media includes 1000BASE-X media (col. 5, line12 as set forth in claim 57), wherein said second media includes 1000BASE-T media (col. 5, line 23 as set forth in claim 58), providing a second NIC interface (GBIC interface means) with a transmitter and a receiver in said NIC (GBIC interface means)(figure 8A-B, references 610 and 612, col. 15, lines 21-22 as set forth in claim 59), providing a first copper interface with a transmitter and a receiver in said NIC (GBIC interface means) (figure 8A-B, references 610 and 612, col. 15, lines 21-22 as set forth in claim 60), providing a second copper interface with a transmitter and a receiver in said second device (col. 15, lines 35-37 as set forth in claim 61), establishing communications

between said transmitter of said first NIC interface and said receiver of said second NIC interface and between said receiver of said first NIC interface (GBIC interface means) and said transmitter of said second NIC interface (GBIC interface means)(figure 7, references 540A-B, col. 15, lines 28-51 as set forth in claim 62), establishing communications between said transmitter of said first copper interface and said receiver of said second copper interface and between said receiver of said first copper interface and said transmitter of said second copper interface (figure 7, references 542A-B, col. 15, lines 28-56 as set forth in claim 63), transmitting a first configuration ordered set using said transmitters of said first and second NIC interfaces (GBIC interface means) (col. 16, lines 35-37 as set forth in claim 64), wherein said first device includes a first NIC interface (GBIC interface means) including a transmitter and a receiver (figures 8A-B, references 540A and 540B, col. 13, lines 28-45 as set forth in claim 74), wherein said first media includes 1000BASE-LX media (col. 5, line 2 as set forth in claim 75), wherein said first media includes 1000BASE-SX media (col. 4, line 67 as set forth in claim 76), wherein said first media includes 1000BASE-X media (col. 5, line12 as set forth in claim 77), wherein said second media includes 1000BASE-T media (col. 5, line 23 as set forth in claim 78), wherein said NIC (GBIC module means) includes a second NIC interface (GBIC interface means) with a transmitter and a receiver (figure 8A-B, references 610 and 612, col. 15 lines 21-22 as set forth in claim 79), wherein said NIC (GBIC interface means) includes a first copper interface with a transmitter and a receiver (figure 8A-B, references 610 and 612, col. 15, lines 21-22 as set forth in claim 80), wherein said second device (figure 5, reference 440) includes a second copper interface with a

transmitter and a receiver (col. 15, lines 35-37 as set forth in claim 81), wherein said transmitter of said first NIC interface (GBIC interface means) communicates with said receiver of said second NIC interface (GBIC interface means) and said receiver of said first NIC interface (GBIC interface means) communicates with said transmitter of said second NIC interface (GBIC interface means)(figure 7, references 540A-B, col. 15, lines 28-51 as set forth in claim 82), wherein said transmitter of said first copper interface communicates with said receiver of said second copper interface and said receiver of said first copper interface communicates with said transmitter of said second copper interface (figure 7, references 542A-B, col. 15, lines 28-56 as set forth in claim 83), wherein said transmitters of said first and second NIC interfaces (GBIC interface means) transmit a first configuration ordered set (col. 16, lines 35-37 as set forth in claim 84), providing a first NIC interface (GBIC interface means) including a transmitter and a receiver in said first device (figures 8A-B, references 540A and 540B, col. 13, lines 28-45 as set forth in claim 93), wherein said first media includes 1000BASE-LX media (col. 5, line 2 as set forth in claim 94), wherein said first media includes 1000BASE-SX media (col. 4, line 67 as set forth in claim 95), wherein said first media includes 1000BASE-X media (col. 5, line12 as set forth in claim 96), wherein said second media includes 1000BASE-T media (col. 5, line 23 as set forth in claim 97), providing a second NIC interface (GBIC interface means) with a transmitter and a receiver in said NIC (GBIC interface means)(figure 8A-B, references 610 and 612, col. 15, lines 21-22 as set forth in claim 98), providing a first copper interface with a transmitter and a receiver in said NIC (figure 8A-B, references 610 and 612, col. 15,

lines 21-22 as set forth in claim 99), providing a second copper interface with a transmitter and a receiver in said second device (col. 15, lines 35-37 as set forth in claim 100), establishing communications between said transmitter of said first NIC interface (GBIC interface means) and said receiver of said second NIC interface (GBIC interface means) and between said receiver of said first NIC interface (GBIC interface means) and said transmitter of said second NIC interface (GBIC interface means) (figure 7, references 540A-B, col. 15, lines 28-51 as set forth in claim 101), establishing communications between said transmitter of said first copper interface and said receiver of said second copper interface and between said receiver of said first copper interface and said transmitter of said second copper interface (figure 7, references 542A-B, col. 15, lines 28-56 as set forth in claim 102), transmitting a first configuration ordered set using said transmitters of said first and second NIC interfaces (GBIC interfaces mean) (col. 16, lines 35-37 as set forth in claim 103), wherein said first means includes a first network interfacing means including a transmitter and a receiver (figures 8A-B, references 540A and 540B, col. 13, lines 28-45 as set forth in claim 113), wherein said first media includes 1000BASE-LX media (col. 5, line 2 as set forth in claim 114), wherein said first media includes 1000BASE-SX media (col. 4 line 67 as set forth in claim 115), wherein said first media includes 1000BASE-X media (col. 5 line12 as set forth in claim 116), wherein said second media includes 1000BASE-T media (col. 5, line 23 as set forth in claim 117), wherein said network interface means includes a second network interface with a transmitter and a receiver (figure 8A-B, references 610 and 612, col. 15, lines 21-22 as set forth in claim 118), wherein said network interface

means includes a first copper interface with a transmitter and a receiver (figure 8A-B, references 610 and 612, col. 15, lines 21-22 as set forth in claim 119), wherein said second means includes a second copper interface with a transmitter and a receiver (col. 15, lines 35-37 as set forth in claim 120), wherein said transmitter of said first network interface communicates with said receiver of said second network interface and said receiver of said first network interface communicates with said transmitter of said second network interface (figure 7, references 540A-B, col. 15, lines 28-51 as set forth in claim 121), wherein said transmitter of said first copper interface communicates with said receiver of said second copper interface and said receiver of said first copper interface communicates with said transmitter of said second copper interface (figure 7, references 542A-B, col. 15, lines 28-56 as set forth in claim 122), wherein said transmitters of said first and second network interfaces transmit a first configuration ordered set (col. 16 lines 35-37 as set forth in claim 123), providing a first NIC interface including a transmitter and a receiver in said switch (figures 8A-B, references 540A and 540B, col. 13, lines 28-45 as set forth in claim 132), wherein said first media includes 1000BASE-LX media (col. 5, line 2 as set forth in claim 133), wherein said first media includes 1000BASE-SX media (col. 4, line 67 as set forth in claim 134), wherein said first media includes 1000BASE-X media (col. 5 line12 as set forth in claim 135), wherein said second media includes 1000BASE-T media (col. 5 line 23 as set forth in claim 136), providing a second NIC interface with a transmitter and a receiver in said NIC (figure 8A-B, references 610 and 612, col. 15, lines 21-22 as set forth in claim 137), providing a first copper interface with a transmitter and a receiver in said NIC (figure 8A-

B, references 610 and 612, col. 15, lines 21-22 as set forth in claim 138), providing a second copper interface with a transmitter and a receiver in said device (col. 15 lines 35-37 as set) forth in claim 139), establishing communications between said transmitter of said first NIC interface and said receiver of said second NIC interface and between said receiver of said first NIC interface and said transmitter of said second NIC interface (figure 7, references 540A-B, col. 15, lines 28-51 as set forth in claim 140), establishing communications between said transmitter of said first copper interface and said receiver of said second copper interface and between said receiver of said first copper interface and said transmitter of said second copper interface (figure 7, references 542A-B, col. 15, lines 28-56 as set forth in claim 141), transmitting a first configuration ordered set using said transmitters of said first and second NIC interfaces (col. 16, lines 35-37 as set forth in claim 142), providing a first NIC interface including a transmitter and a receiver in said switch (figures 8A-B, references 540A and 540B, col. 13, lines 28-45 as set forth in claim 152), wherein said first media includes 1000BASE-LX media (col. 5 line 2 as set forth in claim 153), wherein said first media includes 1000BASE-SX media (col. 4 line 67 as set forth in claim 154), wherein said first media includes 1000BASE-X media (col. 5, line12 as set forth in claim 155), wherein said second media includes 1000BASE-T media (col. 5, line 23 as set forth in claim 156), providing a second NIC interface with a transmitter and a receiver in said NIC (GBIC interface means)(figure 8A-B, references 610 and 612, col. 15, lines 21-22 as set forth in claim 157), providing a first copper interface with a transmitter and a receiver in said NIC (GBIC interface means)(figure 8A-B, references 610 and 612, col. 15, lines 21-22 as set forth in claim

158), providing a second copper interface with a transmitter and a receiver in said device (col. 15, lines 35-37 as set forth in claim 159), establishing communications between said transmitter of said first NIC interface (GBIC interface means) and said receiver of said second NIC interface (GBIC interface means) and between said receiver of said first NIC interface (GBIC interface means) and said transmitter of said second NIC interface (GBIC interface means) (figure 7, references 540A-B, col. 15, lines 28-51 as set forth in claim 160), establishing communications between said transmitter of said first copper interface and said receiver of said second copper interface and between said receiver of said first copper interface and said transmitter of said second copper interface (figure 7, references 542A-B, col. 15, lines 28-56 as set forth in claim 161), and transmitting a first configuration ordered set using said transmitters of said first and second NIC interfaces (GBIC interfaces means (col. 16, lines 35-37 as set forth in claim 162).

One skilled in the art would have recognized the wherein said first media includes 1000BASE-LX media, and would have applied Booth et al.'s NIC in the AAPA. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Booth et al.'s network interface system and method for dynamically switching between different physical layer devices in the AAPA with the motivation being to targeted at multimode fiber and single-mode fiber runs in longer backbone applications (col. 5, lines 2-5).

9. Claim 171 is rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art (AAPA) in view of Kalkunte et al. (US 5, 784,375) further in view of Abler et al. (US 6,504,851).

For claim 171, the applicant's admitted prior art (AAPA) discloses an autonegotiation circuit for Ethernet networks, comprising:

a first device (figure 1, reference 10, page 2, paragraph [0006], lines 2-3) that communicates with a first media (figure 1, reference 20-1)(page 2, paragraph [0006], lines 5-10);

a second device (figure 1, reference 26-1, page 2, paragraph [0006], lines 9-10) that communicates with a second media (figure 1, reference 22-1)(page 2, paragraph [0006], lines 7-10); and

a network interface connector (NIC) module (figure 1, reference 16-1, page 2, paragraph [0006], lines 5-8) that communicates with said first device (figure 1, reference 10) over said first media (figure 2, reference 20-1) and with said second device (figure 2, reference 26-1) over said second media (figure 2, reference 22-1), wherein said GBIC provides autonegotiation between said first and second devices (page 2, paragraph [0006], lines 5-10).

However, the applicant's admitted prior art (AAPA) does not expressly disclose wherein said first device transmits a configuration ordered set that includes configuration data of said first device to said NIC, said NIC receives and stores said configuration data in memory, and said NIC transmits a first fast link pulse (FLP) burst to said second device after storing said configuration data.

In an analogous art, Kalkunte et al. disclose wherein said first device transmits a configuration ordered set that includes configuration data of said first device to said NIC, said NIC receives and stores said configuration data in memory (col. 5, 56-58).

One skilled in the art would have recognized the wherein said first device transmits a configuration ordered set that includes configuration data of said first device to said NIC, said NIC receives and stores said configuration data in memory, and would have applied Kalkunte et al.'s network interface 10 in the AAPA. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Kalkunte et al.'s rotating priority arrangement in an Ethernet network in the AAPA with the motivation being to store network configuration data including the number of stations on the network (col. 5, lines 56-58).

Furthermore, the applicant's admitted prior art (AAPA) in view of Kalkunte et al. does not expressly disclose said NIC transmits a first fast link pulse (FLP) burst to said second device after storing said configuration data. In an analogous art, Abler et al. disclose said NIC transmits a first fast link pulse (FLP) burst to said second device after storing said configuration data (col. 7, lines 66-67).

One skilled in the art would have recognized said NIC transmits a first fast link pulse (FLP) burst to said second device after storing said configuration data, and would have applied Ableret al.'s NIC 200 in the AAPA. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Abler et al.'s dynamic detection of LAN network protocol in the AAPA with the motivation being to provide the auto-negotiation (col. 8, line 1).

Allowable Subject Matter

10. Claims 13-19, 28-34, 46-52, 65-72, 85-91, 104-11, 124-130, 143-150 and 163-170 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TOAN D. NGUYEN whose telephone number is (571)272-3153. The examiner can normally be reached on M-F (7:00AM-4:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Firmin Backer can be reached on 571-272-6703. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/T. D. N./
Examiner, Art Unit 2616

/FIRMIN BACKER/
Supervisory Patent Examiner, Art Unit 2616